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ABSTRACT

The increase in one child families in the 1980's is analogous to the one child family rate during the Depression years. Although family size was limited for economic reasons during the Depression, current increases in the number of one child families are attributed to advances in contraceptive technology, increased employment of women, inhibiting economic factors, and increased marital instability. The increased numbers of voluntory one child families, may result in a child psychologically different from the only child of past generations. The well-known confluence model of intellectual development, which posits that intellectual development is determined by the level of family intelligence, is currently in doubt due to the recognition of various confounding factors, (e.g., father absence, socioeconomic status), and subsequent research. Studies of achievement with only children have shown that only children perform better academically than others. Parental expectation, financial abilities, and an uninterrupted relationship with the child are possible reasons for this high achievement. Self-esteem studies have placed only children above, below, and at par with others. In interpersonal relations only children have been found to be less affiliative than others, which may be the result of the relatively large amounts of affection they receive from their parents, rather than a lack of social skills. Only children appear to be mentally healthy, with many studies indicating that only children are underrepresented in psychiatric literature. Future research should focus on factors other than sibling absence in defining characteristics of the only child. (BL)

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THE ONE CHILD FAMILY IN PERSPECTIVE

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The One Child Family in Perspective

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The U.S. today is in a period of change regarding the incidence of the one-child family. According to the U.S. Bureau of the Census, the percentage of white wives in their childbearing years who have one child and expect no more children jumped from 31% in 1971 to 41% in 1980 (U.S. Bureau of the Census, 1974, 1982). On the basis of statistics like these, demographers expect that the incidence of the one-child family within this cohort of families will be comparable to the incidence of the one-child families formed during the Depression. Therefore, it is expected that within the 20th century, there will be two periods of relatively high incidences of the one-child family, during the Depression and during the period extending from the mid-70s through the 80s.

This demographic information would have little significance for psychologists if it weren't for the fact that most Americans believe that the presence of siblings is necessary for the proper social development of children. A large majority of Americans have indicated to Gallup pollsters that they think the only child is disadvantaged and the two-child family is ideal. Thompson points out that only children are popularly viewed as "generally maladjusted, self-centered and self-willed, attention-seeking and dependent on others, temperamental and anxious, generally unhappy and unlikable, and yet somewhat more autonomous than a child with two siblings" (pp. 95-96). In fact, the general opinion regarding only children is so negative that the most commonly cited reason for having a second child is to prevent the first from becoming an only child (Solomon, Clare, & Westoff, 1956).

Therefore, many Americans are concerned by the currently high incidence of one-child families. They wonder what will happen when these children grow up? Will the divorce rate increase? Will our mental institutions become overcrowded? Will we become a nation even more dedicated to rugged individualism? To answer questions like these, considerable amounts of research has been conducted in recent years and my address today will review this research literature.

But first, we should consider the societal and historical causes of the increases in the one-child family. During the Depression, economic factors were considered causal in lowering overall family size in the U.S. The current increase in the one-child family has been attributed to four factors: (1) advances in contraceptive technology, (2) increased employment of women, (3) inhibiting economic factors, (4) increased marital instability. The first of these four, contraceptive technology, has provided people with greater control of their fertility so that they can choose to postpone or prevent childbearing. The last three factors are reasons people currently have for postponing or preventing additional children. There is evidence that two of these reasons, women's employment and marital instability are associated with the one-child family. Women who have one child are more likely to be employed outside the home than women with more children (DeJong, Stokes, & Hanson, 1980). In addition, evidence from a variety of sources indicate that only children are more likely to come from single parent families (Blake, 1981; Claudy, Farrell, &

Dayton, 1979; Falbo, 1978b). However, it is unknown at present whether one-child families are especially affected by current economic factors, although it is possible that one of the reasons women with one child are more likely to be employed outside the home is that their families have greater financial problems.

Some evidence suggests that many parents who have only one child do not feel entirely comfortable with this family size outcome. For example, Polit (1980) has reported that a sizeable number of her one-child mothers, regardless of their current marital status, expressed a desire to have had a larger family. Likewise, Lewis (1972) reported that women who involuntarily had one child were more unhappy with their fertility outcome than women with two or three children or women who had voluntarily chosen to have an only child. Beyond this, one is left so speculate about the consequences of involuntarily having a single child. It seems likely that women who involuntarily had only one child would be extremely disappointed by their low fertility outcome and this disappointment could easily influence their parenting. For example, it is easy to imagine such a mother overprotecting, overindulging, and even expecting too much from her only child. In contrast, one would expect voluntary one-child mothers to be less likely to overprotect, overindulge or expect too much from their child because they would lack the frustration driving the behavior of the involuntarily one-child mothers. It seems likely that the voluntariness of the decision to have an only child will have a strong impact on the child's development and the parent's satisfactions with their family.

Given the recent increase in women's labor force participation and the advances in contraceptive technology, it seems likely that the proportion of voluntary one-child families will be greater during the early 1980s than in previous generations. This enhanced voluntarism among one-child mothers may result in the production of a group of only children who are markedly different from their predecessors. For this and other historical reasons, the results of research of past generations of only children may not represent the current generation of only children. With this caution in mind, let us proceed with an overview of the theories that have been applied to the only child.

Many causal models have been used to explain or predict differences found between only children and others. The most commonly applied model concerns sibling absence. For example, people generally expect only children to be selfish because they did not have siblings with whom to learn sharing. I would like to argue that specific differences found between onlies and others are most likely to be multiply determined. Therefore, sibling absence is not likely to be the sole cause of difference, but rather several other factors, particularly parental characteristics, are likely to interact with sibling absence to produce the effects observed.

Of course, the major psychological models used in this context have been those associated with birth order. That is, the interaction of siblings, as determined by their order of birth, has been both theoretically and empirically linked to the development of many significant personality characteristics. Within the birth order literature, there has been confusion regarding the only children. Sometimes, they are combined with firstborns (e.g., Crandall, Katkovsky, & Crandall, 1965), sometimes, they are separated into a distinct category (e.g., Zajonc & Markus, 1975). Only children are difficult to categorize because they represent a family size (the one-child family) as well

as a birth order. They are simultaneously the first and last born child in their families. Therefore, the applicability of many birth order theories to only children is somewhat in doubt.

The following review will survey a wide range of topics, from intelligence to affiliativeness. The causal models that have been used will be described and they can be categorized as expressing popular notions, sibling absence, parental characteristics or birth order.

Intelligence

The topic of intellectual development is the best example of how the use of a single causal model, in this case based on sibling absence, can inhibit knowledge about the causes of only child outcomes. Several large-scale studies of the relationship between IQ and family size have found them to be inversely related (Belmong & Marolla, 1973; Breland, 1974; Claudy, 1976). On the basis of this negative relationship, one would expect only children to have the highest IQ of all because they come from the smallest family size. Only children have not always lived up to this expectation and they are frequently found to score somewhat lower than this expectation (Belmont & Marolla, 1973; Breland, 1974; Zajonc & Markus, 1975).

The most well-known model that has addressed both the general relationship between family size and IQ and the specific performance of only children is the confluence model (Zajonc & Markus, 1975). This respected ("Zajonc Defuses IQ Debate," 1976) and popular (Zajonc, 1975) model states that intelligence develops as a function of a combination of factors, including the child's maturation and experience within the family.

The confluence model posits that intellectual development is largely determined by the level of intelligence present within the family. The level of intellectual functioning of a family is operationally defined as consisting of the average of the combined absolute intelligence scores of all family members. Absolute intelligence represents the upper level of intellectual operations an individual can perform when tested. Absolute intelligence is uncorrected for age and since children have lower absolute intelligence levels than adults, this means that the intellectual environment of a family is greater the more adult and fewer child members it has. In this fashion, the confluence model explains the frequent finding that children from single-parent families score lower on IQ tests than children from two-parent families of comparable size (Biller, 1974; Blanchard & Biller, 1971; Broman, Nicholls & Kennedy, 1975; Carlsmith, 1964; Lynn, 1974; Sutton-Smith, Rosenberg & Landy, 1969). However, one should note that research in the area of father absence has been generally criticized for methodological flaws (Marino & McCowan, 1976; Herzog & Sudia, 1968; Shinn, 1978).

In addition to accounting for the effects of such variables as family size and father absence on intellectual development, the confluence model explains why several large-scale surveys of young adults have found that only borns do not fulfill the expectation of having the highest IQ. Zajonc and Markus combined the only child discontinuity with the additional finding that last borns also demonstrated a decline in IQ performance relative to expectation. Since both only and last borns share the common fate of having no younger sibling, Zajonc & Markus decided that this lack caused the discontinuity.

Therefore, the sibling tutoring factor was added to the confluence model. It was argued that having a younger sibling gives the older child the opportunity to tutor and tutoring a younger sibling was proposed as beneficial to intellectual development.

Tests of the Model

The original test of the model, conducted by Zajonc & Markus (1975), consisted of a correlation between two curves, both representing the relationship between family size and intelligence. One curve was based upon aggregated data from 400,000 Dutch Army inductees, and the second curve was generated by the confluence model. With the addition of the sibling tutoring factor to the simulated data, these two curves shared about 97% of their variance (Zajonc & Markus, 1975).

Unfortunately, a subsequent test of the confluence model found that it accounted for only about 2% of the variance in predicting children's IQ scores. Using regression equations representing the confluence model, Grotevant, Scarr, and Weinberg (1977) substituted actual IQ scores from all family members for the simulated ones used by Zajonc and Markus. Grotevant et al (1977)'s results suggest that the confluence model may explain the relationship between family size and IQ at the aggregate, but not the individual level.

More recently, three large-scale studies have cast even more doubt upon the family configuration and intelligence relationships which were the basis of the confluence model. For example, Galbraith (1982) attempted to find a negative relationship between family size and the American College Testing Program Examination (ACT) scores of 10,925 undergraduates. He found no relationship. Likewise, Brackbill and Nicholls tested the sibling tutoring hypothesis by examining the scores of only children. They reasoned that if the sibling tutoring factor is correct, only children should score lower than expected from their family size. Their results only partially supported this expectation: for both blacks and whites, onlies scored significantly worse than expected on achievement but not on intelligence tests.

Additional tests of the sibling tutoring factor have also produced qualified support. Bill Snell and I simulated sibling tutoring between pairs of 304 female undergraduates. The tutors were seniors and the tutees were freshmen. The tasks they taught or learned were either spatial or verbal in nature. Both spatial and verbal ability tests were given before, at the mid-point, and after the ten-day training session. The results indicated that simply teaching someone younger is not sufficient to produce a significantly greater change in either abilities or task performance compared to being taught or teaching oneself the same tasks. However, tutors with high abilities who took an active role in teaching performed the tasks better than their more inactive counterparts.

If the Falbo and Snell (1982) and Brackbill and Nicholls (1982) studies provide only qualified support for the sibling tutoring effect, it may be advisable to reconsider some of the alternative explanations for the IQ discontinuities of only and last borns. Indeed, Zajonc and Markus (1975) were the first to speculate about some alternatives. They suggested two: degree of wantedness and the incidence of congenital handicaps. Zajonc and Markus indicated that there may be a greater incidence of unwantedness or handicaps among only and last borns and that this difference could lead only and last

borns as a group to score lower than expected on intelligence measures. Unfortunately, Zajonc and Markus chose not to include these alternatives in their model because they thought that there was no information available regarding the incidence of unwantedness or congenital handicaps in the general population. Lack of information about the incidence of sibling tutoring, however, did not prevent them from including the sibling tutoring factor in their model. In fact, since the publication of the confluence model evidence has been published indicating that last borns are more likely to be unwanted (Westoff & Ryder, 1977) and that unwanted children score less well on school achievement than wanted children (David, 1981). Furthermore, there is some evidence that parents whose first child is born with a handicap tend to stop their family size at one child (Collins, 1982). Therefore, it seems likely that both only and last borns as groups contain a higher incidence of unwantedness and handicaps than other groups of children.

Two additional alternative explanations for the only/last born handicap have been suggested. Blake (1981) has proposed that the only/last born handicap found in the original Dutch data used by Zajonc and Markus is due to the increased likelihood that these individuals were affected by the 1944-45 Dutch famine. She argues that these only or last borns were the last born in their families because their parents were particularly affected by this famine. Because of this deprivation during their prenatal or infancy periods, these only and last borns were more likely to suffer from intellectual deficiencies as young adults.

The second alternative explanation offered for the intelligence discontinuity of only and last borns concerns father absence (Falbo, 1978c). Recall that one of the strengths of the confluence model was its ability to explain why children with one parent frequently are found to achieve lower intelligence levels than children with two parents (Biller, 1974; Blanchard & Biller, 1971; Broman, Nichols, & Kennedy, 1975; Carlsmith, 1964; Lynn, 1974; Sutton-Smith, Rosenberg, & Landy, 1969). Interestingly, according to U.S. Census data, father absence is more common among women with one child in their completed family than women with more children (Falbo, 1978b). Claudy et al (1979) used this informations the basis for a reanalysis of data which had previously supported the only child discontinuity. They found that when individuals from single parent families were eliminated from their sample, the only born discontinuity in intellectual abilities disappeared. In fact, Claudy et al found that only borns in this revised sample scored significantly better than individuals from two-child families on 25 of the 32 possible tests. Only children scored lower than individuals from two-child families on three of these tests and no differently on the remaining four tests. Only children scored lower than individuals from two child families on three of these tests and no differently on the remaining four tests. This explanation may also apply to last borns, although comparable census information about last borns is unavailable. The argument for the applicability of the father absence explanation to last borns is that last borns may be the last child born in the family because the parents' marriage ended, either through divorce or death.

In summary, the current status of our knowledge regarding the intelligence of only children is uncertain. The reasons for the inconsistent results probably lie in the various confounding factors (e.g., father absence, socio-economic status) not controlled for in the various studies. At present, the confluence model is the major model available in the literature that explains the origins of the relationships between an array of family configuration

factors and intelligence. However, recent investigations of this model have cast doubt on the basic associations between specific family configuration factors and intelligence which serve as the basis of the model. Further, because the sibling tutoring factor has only qualified empirical support, other reasons why only children do not consistently have the highest IQ of all children have been proposed and empirically supported. Therefore, the validity of the confluence model, especially with regard to explaining the performance of only children, is currently in doubt.

Achievement

Achievement is another area that has received much research attention. Compared to intelligence, the picture of the achievement of only children is clear. Disproportionate numbers of first and only borns have been found among eminent men (Ellis, 1904), faces on the covers of Time (Toman & Toman, 1970) and psychologists (Roe, 1953). Furthermore, several birth order studies of achievement have found that both first and only borns performed better academically than others (Guildford & Worcester, 1930; Jones, 1954; Lees & Steward, 1957; Oberlander & Jenkins, 1967; Skouholt, Moore & Wellman, 1973). More recent studies have made comparisons on the basis of family size and found only borns to compare favorably to people from larger families. For example, Blake (1981) found that only born men attain higher levels of education and occupational prestige than men from larger families, especially those containing four or more children. Claudy et al (1979) also found evidence that only children were more academically oriented in high school and later, as adults, only children obtained more education than individuals from two-child families. Consistent with these findings, Falbo (1981) found that, among undergraduates, only and first borns have higher educational aspirations than later borns.

Searches for the psychological factors that account for this achievement effect have focused on the special relationship onlies and firstborns have with their parents. Achievement motivation had been thought to originate in the high standards for mature behavior that parents impose on their children at relatively early ages (Rosen & D'Andrade, 1959; Winterbottom, 1958). This approach to explaining achievement motivation is relevant here because there is evidence that first and only borns receive greater pressure for more mature behavior from parents than do later borns (Clausen, 1966; Kammeyer, 1967). In support of the achievement motivation explanation, Sampson and Hancock (1967) Angelini (1967), and Rosen (1961) found that first and only borns scored higher on need for achievement tests than did later borns. However, not everyone has found such an effect in their need for achievement data (e.g., Rosenfeld, 1966).

There is one factor special to only children that could enhance their achievement: their uninterrupted relationship with their parents. The acquisition of adult-like behavior is probably accelerated in only children because they have solely adult models of behavior in their family environment. Children with siblings are exposed to both child and adult models of behavior and this may slow these children's acquisition of adult-like behavior. Guildford and Worcester (1930) support this speculation, reporting that only children are more adult-oriented than are children with siblings. Further, several investigations suggest that onlies have a special relationship with their parents than do firstborns (Kidwell, 1978).

Another factor that contributes to the achievement of onlies and firstborns is their strong tendency to take responsibility for outcomes. First and especially only borns have been found to have a more internal locus of control than later borns (Crandall, Katkovsky and Crandall, 1965; Falbo, 1981). To date, there has been little adequate explanation for this finding. Crandall et al explained their results due to the tendency of firstborns to take care of their younger siblings. Although this explanation is plausible for firstborns, it fails to explain the fact that Crandall et al found both first and only borns to have a more internal orientation than later borns. Perhaps the special relationship only borns have with their parents is responsible for the only borns' strong internality. Maybe because only borns have their parents' full attention, onlies receive more immediate and consistent reinforcement for their acts than do children with siblings. This enhanced parental attention may facilitate the development of an internal locus of control.

In summary, onlies, like firstborns, have been found to be overrepresented among achievers. Further, only borns have been found to obtain more education than others. The reasons for this strong achievement appear to be related to the special parent-child relationships onlies, and to some extent firstborns, have.

Self-Esteem

On the basis of their stereotype, one would expect only children to have unrealistically high self-esteems. In fact, early research tended to support this notion. Fenton (1928) and Goodenough and Leahy (1927) compared teacher ratings of only vs. nononly children and found that only children scored higher in the traits of "conceit" and "self-confidence".

More recent studies of the self-esteem of only children have resulted in a mixed picture regarding the self-esteem of only children. The mixture of results is matched by a mixture of interpretations, emphasizing both parents and siblings as contributing factors.

For example, Zimbardo and Formica (1963) based their research on social comparison theory which states that one's level of self-esteem is determined by the results of one's comparison between oneself and others. Zimbardo and Formica reasoned that first and only borns preferred to compare themselves to their parents (an adult to child comparison), whereas last borns compared themselves to their older siblings (a child to child comparison). Because the difference between adults and children is greater than the difference between children and children, Zimbardo and Formica argued that only and first borns acquire lower self-esteem than last borns. Unfortunately, the empirical test of this prediction obtained supportive results that were only of borderline significance. Later, Kaplan (1970) had more success. He found that last borns were more likely to be in the high self-esteem group than were middle or first and only borns. Further analysis of Kaplan's finding, however, indicated that the effect was true for white males from high social class groups, only.

Other authors have argued that onlies and firstborns would have higher self-esteem than middle and last borns because first and only borns would receive more unconditional positive regard from their parents than would later borns. Some support for this prediction was found by Coopersmith (1967). He found that only and first born adolescent males were overrepresented in his high

self-esteem group. Similarly, Rosenberg (1965) reported that only borns were more likely to be classified as having high self-esteem than were nononly borns. However, further analysis of Rosenberg's data indicated that this apparent difference between only and nononly borns existed mainly for males, especially Jewish males.

The most recent study of the self-esteem of only children found that last borns scored significantly less well than first borns and that middle and only borns scored between these two extremes (Falbo, 1981). Further, the self-esteem of only borns was not significantly different from the self-esteem of all the nononly categories. In explaining this result, I revised the social comparison rationale initially proposed by Zimbardo and Formica. According to this revised view, children develop their sense of personal worth by comparing themselves to their siblings (if present), not to parents, as Zimbardo and Formica proposed. Since older siblings are generally more capable, larger, more skilled, etc. than younger siblings, firstborns would come to regard themselves more favorably than would their siblings, and therefore would develop the most positive self-esteem. Conversely, last borns would have the least favorable comparison to their siblings. Therefore, they would develop the least positive self-esteem. Finally, both only and middle borns would develop moderate levels of self-esteem, but for different reasons. Middle borns would compare negatively to their older siblings, but positively to their younger siblings, and this mixed comparison would lead middle borns to acquire moderate levels of self-esteem. In contrast, only children would not experience a sibling comparison and consequently their self-esteem development would be unaffected by the comparison process. Therefore, they would also develop a moderate level of self-esteem.

In summary, various studies of the self-esteems of only children have placed them above, below, and even at par with others. This disparity of results is probably due to several causes, including nature of the self-esteem measurement, and the age of the subjects.

Interpersonal Orientation

The popular view of the only child suggests that they have a particularly undesirable interpersonal orientation. Because of this popular concern, psychologists have paid considerable attention to this aspect of the only child. As the following review will show, the results of these investigations are mixed, but they generally vindicate the only child.

A very recent study (Snow, Jacklin, & Maccoby, 1981) examined the sociability of 101 33-month old children and found that onlies at this age behaved more assertively and positively towards a peer than did later born children. The authors explained this difference in terms of the greater parental attention given to only and firstborns than later borns. In contrast, the weaker sociability found among later borns was explained in terms of undesirable sibling interactions, with the later borns developing more of an aversion to others because of the greater likelihood that later borns are victims of these sibling interactions.

Studies of the peer popularity of older children portray only children as alternately like firstborns or last borns. In a study of sociometric choices within the classroom, Miller and Maruyama (1976) found that last borns were selected more frequently as playmates and someone to sit close to than were only

or first borns. Likewise, teachers of these students rated those who were later borns as being more sociable than were those who were only or first borns. Miller and Maruyama suggested that because only and first borns do not have older siblings, they acquire more autocratic, less interactive interpersonal styles and that this has negative consequences for peer popularity. However, contradictory results about only children were observed in an earlier study of peer popularity. Sells and Roff (1963) obtained likeability ratings from same-sex grade school classmates and found that only and last borns received the highest ratings. Given the mixture of results about only children, it is difficult to draw a conclusion about their reception among their peers.

If only children have seriously defective social skills, one would expect them to have a negative mental health record. In general, on a variety of mental health variables, no indfferences have been found between only and nononly children (Burke, 1956; Howe & Madgett, 1975). In fact there are four studies that found only children to be underrepresented among psychiatric or other clinical clients (Blatz & Bott, 1927; Corfield, 1968; Kurth & Schmidt, 1964; Tuckman & Regan, 1967). However, there is also evidence that only children are more likely to be referred for clinical help (Hough, 1932; Ko & Sun, 1965), and to repeat visits to the clinic (Howe & Madgett, 1975). However, in all three of these studies (Hough, 1932; Howe & Madgett, 1975; Ko & Sun, 1965) the investigators suggested that the major reason for this relatively high referral and repeat rate was the overprotective attitude of the parents.

One area of interpersonal functioning that has produced a fairly consistent finding about only children concerns affiliativeness. Early research in this area focused on parent-child interactions. Schachter (1959) argued that onlies and firstborns affiliated more during times of stress than later borns because only and first borns received more immediate attention during childhood when they cry than did later borns. According to Schachter, mothers of first and only borns are more anxious about their babies and therefore respond more promptly to them than to subsequent children. By the time mothers have their second child, their greater experience with babies reduces their anxiety and, consequently, they respond less promptly to the cries of these later born children. Schachter posited that this differential mothering brought about the expectation among adult only and first borns that other people are comforting during times of stress. Schachter's early experiments supported this prediction and the general effect has been replicated in field studies (Hoyt & Raven, 1973) as well as with role-playing techniques (Greenberg, 1967).

In other types affiliation, however, the accumulating evidence suggests that only children are less affiliative than others, including firstborns. Only children have been found to belong to fewer organizations (Blake, 1981; Falbo, 1978a), report having fewer friends (Falbo, 1978a), visit friends and relatives less often (Blake, 1981), and have a less intense social life (Claudy, et al., 1979) than others. Consistent with these results, Rosenfeld (1966) compared the need for affiliation scores of first and only borns and found firstborns to have significantly higher needs for affiliation than only borns. Nonetheless, only children do not appear to suffer from this relatively low affiliation. Among undergraduates, only children reported having numbers of close friends that were comparable to those reported by nononly borns (Falbo, 1978a). Further, only born undergraduates have been found to be no lonelier than their nononly born counterparts (Falbo, 1981). Similarly, among adults, only borns express a level

of life satisfaction and general happiness that is no different from others (Blake, 1981).

This lowered affiliativeness among only borns has been explained as caused by the relatively large amounts of affection they receive from their parents. Specifically, Connors (1963) argued that because only children suffer less affection deprivation from their parents than do children with siblings, only children are less motivated to affiliate with others. In a study designed to test the hypothesis that there is a linear continuum of affectional deprivation which goes from only child to last born child, Connors (1963) was able to support this hypothesis and also demonstrate an inverse relationship between affection deprivation and affiliation. Therefore, only children may be less affiliative and yet no lonelier than others because of the strong and unbroken parental affection they receive during childhood.

In summary, it appears that only children may be less affiliative than others, but this difference may be the result of their lack of affection deprivation from their parents rather than their lack of social skills. The mental health record of only children appears to be reasonably good. There are contradictory results regarding the peer popularity of only children.

Summary and Conclusions

I have reviewed areas of knowledge about only children that have received some research attention. Certainly, the topics covered here do not exhaust all the possible topics of interest regarding only children and their families. In particular, we need more longitudinal studies involving the relationship of siblings to the development of social skills. In addition, we need to examine the consequences of having no siblings on outcomes that occur later in life, such as caring for elderly parents or coping with widowhood. Much valuable research remains to be done.

In summary, in this address I have elaborated on the major model which has described the intellectual development of the only child, the confluence model. After this model was published, the case of the only child appeared closed: several large-scale surveys had found only children to score less well than expected. However, more recent investigations have found that only children live up to expectations on intelligence tests, if not achievement tests (Brackbill & Nichols, 1982). Therefore, the intellectual development of only children is again a topic for discussion.

The achievement of only children as adults appears to be relatively high, especially in the educational domain. The cause of this achievement may be related to the greater ability of one-child parents to financially support the education of their children (Bayer, 1966; Schooler, 1972). The cause may also be the special relationship only children have with their parents. The unbroken attachment between onlies and their parents, their more adult-oriented home environment, and the high standards set by one-child parents, probably all contribute to the facilitation of achievement among only children.

The self-esteem of only children has been repeatedly investigated, usually as part of a birth order study. Despite the attention paid to this topic, little consistent information has emerged. For example, only children have been found to resemble firstborns in having higher (Coopersmith, 1967) as well as

lower (Zimbardo & Formica, 1963) self-esteem than others. Solving the self-esteem puzzle will probably require extensive research.

The research on the interpersonal orientation of only children had produced some fairly consistent findings. Recent research with very young children suggests onlies may have more social skills than children with siblings, especially later born children. The mental health picture of only children is also positive, with several studies indicating that only children are under-represented among psychiatric or other clinical clients. Further, many disparate studies of only children all agree that only children demonstrate a consistent pattern of affiliativeness. During times of stress, only and first borns appear to be more likely to affiliate with others. Otherwise, only borns appear to affiliate less than others, even though this lowered affiliativeness does not result in increased loneliness or unhappiness for only borns.

Many years ago, Schooler (1972) published a critique of birth order research which outlined several reasons why birth order studies produce inconsistent results. Schooler argued that many studies which found specific birth ranks to be overrepresented among special populations, such as alcoholics, schizophrenics or National Merit Scholars, have generally made the mistaken assumption that their birth rank was the cause of their alcoholism, schizophrenia or scholastic achievement. Unfortunately, Schooler demonstrated that many of these findings evaporated when family size, parental education, and the incidence of birth ranks within a comparable normal population was considered. According to Schooler, birth rank per se was frequently not the cause of the obtained differences, rather other family factors were at work in producing an apparent birth order result. Schooler argued that as long as investigators assume that any observed difference between birth ranks is caused by birth rank and not other factors, then this area of research will continue to be characterized by a cacophony of mixed and often contradictory results.

Similarly, I am arguing that as long as investigators assume that any difference obtained between only borns and others is produced by the only child's lack of siblings, then we can expect to continue producing a wide array of inconsistent results about only children. Hopefully, this review has demonstrated that factors other than sibling absence bring about many only child characteristics. In particular, characteristics of parents and their relationship with their children should be measured and considered. Also, it seems likely that cohort effects will exist such that differences found in previous generations may not be repeated within the current generation of only children. As mentioned at the beginning of this address, it seems likely that the current increase in the number and proportion of parents who are voluntarily having only one child will lead to changes in the characteristics of only children as a group. These changes are for future research to uncover.

REFERENCES

Allen, V.L. Children as Teachers. New York: Academic Press, 1976.

Angelini, H.B. Family Structure and Motivation to Achieve. Revista Interamericana de Psicologia, 1967, 1(2), 115-125.

Barnes, J., Fisher, J., and Palmer, M. Family Characteristics and Intellectual Growth: An Examination by Race. Educational and Psychological Measurement, 1979, 39(3), 625-636.

Bayer, A.E. Birth Order and Attainment of the Doctorate: A Test of Economic Hypotheses. American Journal of Sociology, 1967, 72, 540-550.

Belmont, L., and Marolla, F.E. Birth Order, Family Size, and Intelligence. Science, 1973, 182, 1096-1101

Biller, H.B. Parental Deprivation. Toronto: Lexington Books, 1974.

Blake, J. Can We Believe Recent Data on Birth Expectation in the United States? Demography, 1974, 11, 25-44.

Blake, J. The Only Child in America: Prejudice versus performance. Population and Development Review, 1981, 1, 43-54.

Blanchard, R.W. and Biller, H.B. Father Availability and Academic Performance among Third Grade Boys. Developmental Psychology, 1971, 4, 301-305.

Blatz, W.E. and Bott, E.A. Studies in Mental Hygiene of Children: I. Behavior of Public School Children. -- a Description of Method. Journal of Genetic Psychology, 1927, 34, 552-582.

Brackbill, Y., and Nicholls, P.L. A Test of the Confluence Model of Intellectual Development. Developmental Psychology, 1982, 18(2), 192-198.

Breland, H.M. Birth Order, Family Configuration, and Verbal Achievement. Child Development, 1974, 45, 1011-1019.

Broman, S.H., Nichols, P.L. and Kennedy, W.A. Preschool IQ: Prenatal and Early Development Correlates. New York: John Wiley & Sons, 1975.

Burke, M.O. A Search for Systemiatic Personality Differentiate of the Only Child in Young Adulthood. Journal of Genetic Psychology, 1956, 89, 71-84.

Carlsmith, L. Effect of Early Father Absence on Scholastic Aptitude. Harvard Educational Review, 1964, 34, 3-21.

Cattell, R.B. Abilities: Their Structure, Growth and Action. Boston: Houghton Mifflin Company, 1971

Claudy, J.G. Cognitive Characteristics of the Only Child. Paper presented at the 84th annual convention of the American Psychological Association, Washington, D.C., 1976.

Claudy, J.G., Farrell, W.S. and Dayton, C.W. The Consequences of Being an Only Child: An Analysis of Project Talent Data (Final Report No. NO1-HD-82854). Center for Population Research, National Institutes of Health, December, 1979.

Clausen, J.A. Family Structure, Socialization, and Personality. In L.W. Hoffman & M.L. Hoffman (Eds.), Review of Child Development Research (Vol. 2). New York: Russell Sage Foundation, 1966

Collins, M.S. Parental Reactions to a Visually Handicapped Child: A Mourning Process. Unpublished doctoral dissertation, University of Texas at Austin, 1982.

Connors, C.K. Birth Order and Needs for Affiliation. Journal of Personality, 1963, 31(3), 409-416.

Coopersmith, S. The Antecedents of Self-esteem. San Francisco: N.H. Freeman, 1967.

Corfield, V.K. The Utilization of Guidance Clinic Facilities in Alberta, 1961. Alberta Psychologist, 1968, 9(3), 15-45.

Crandall, V.C. Katkovsky, W. and Crandall V.J. Children's Beliefs in Their Own Control of Reinforcement in Intellectual-academic Achievement Situations. Child Development, 1965, 36, 91-109.

David, H.P. Unwantedness: Longitudinal Studies of Prague Children Born to Women Twice Denied Abortion for the Same Pregnancy and Matched Controls. In P. Ahmed (Ed.), Coping with Medical Issues: Pregnancy, Childbirth and Parenthood.

DeJong, G.F., Stokes, S. and Hanson, S.L. Long Term Consequences of Childlessness and One Child on Labor Force Participation, Mobility Aspirations, and Occupational Attainment of Married Women. (Third Progress Report, Contract No. N1-HD-92807). National Institute of Child Mental Health and Human Development, 1980.

Ellis, H.A. A Study of British Genius. London: Hurst & Blackett, 1904

Fenton, N. The Only Child. Journal of Genetic Psychology, 1928, 35, 546-556.

Falbo, T. Only Children and Interpersonal Behavior: An Experimental and Survey Study. Journal of Applied Social Psychology, 1978, 8, 244-253 (a).

Falbo, T. Reasons for Having an Only Child. Journal of Population, 1978, 1, 181-184 (b).

Falbo, T. Sibling Tutoring and Other Explanations for Intelligence Discontinuities of Only and Last Borns, Journal of Population, 1978, 1, 345-364 (c).

Falbo, T. Relationships Between Birth Category, Achievement and Interpersonal Orientation. Journal of Personality and Social Psychology, 1981, 41(1), 121-131.

Falbo, T. Only Children in America. In M. Lamb and B. Sutton-Smith (Eds.), Sibling Relationships: Their Nature and Significance Across the Lifespan. Hillsdale, New Jersey: Erlbaum, 1982.

Falbo, T. and Snell, W.E. Experimental Tests of the Sibling Tutoring Factor. Texas Population Research Center Papers, 1982, (Series 4).

Fowler, P.C. and Richards, H.C. Father Absence, Educational Preparedness and Academic Achievement: A Test of the Confluence Model. Journal of Educational Psychology, 70(4), 595-601.

Galbraith, R.C. Sibling Spacing and Intellectual Development: A Closer Look at the Confluence Models. Developmental Psychology, 1982, 18(2), 151-173.

Gewirtz, J.L. and Gewirtz, H.B. Stimulus Conditions, Infant Behaviors and Social Learning in Four Israeli Child-rearing Environments: A Preliminary Report Illustrating Differences in Environment and Behavior Between 'Only' and 'Youngest' Child. In B.M. Foss (Ed.), Determinants of Infant Behavior III. New York: Wiley, 1965.

Goodenough, F.L. and Leahy A.M. The Effect of Certain Family Relationships upon the Development of Personality. Journal of Genetic Psychology, 1927, 34, 45-71.

Greenberg, M.S. Role Playing: An Alternative to Deception? Journal of Personality and Social Psychology, 1967, 7(2 Pt.1), 152-157.

Grotevant, H.D., Scarr, S., and Weinberg, R.A. Intellectual Development in Family Constellations with Adopted and Natural Children: A Test of the Zajonc and Markus Model. Child Development, 1977, 48, 1699-1703.

Guilford, R.B. and Worcester, D.A. A Comparative Study of the Only and Nononly Child. Journal of Genetic Psychology, 1930, 38, 411-426.

Herzog, E. and Sudia, C. Fatherless Homes: A Review of Research. Children, 1968, 15(50. 177-182.

Hough, E. Some Factors in the Etiology of Maternal Over-protection. Smith College Studies of Social Work. 1932, 2, 188-208.

Howe, M.G. and Madgett, M.E. Mental Health Problems Associated with the Only Child. Canadian Psychiatric Association Journal, 1975, 20(3), 189-194.

Hoyt, M.P. and Raven, B.H. Birth Order and the 1971 Los Angeles Earthquake. Journal of Personality and Social Psychology, 1973, 28, 123-128.

Jones, H.E. Environmental Influence on Mental Development. In L. Carmichael (Ed.), Manual of Child Psychology (2nd ed.). New York: Wiley, 1954.

Kammeyer, K. Birth Order as a Research Variable. Social Forces, 1967, 46, 71-80.

Kaplan, H.B. Self-derogation and Childhood Family Structure. Journal of Nervous and Mental Disease, 1970, 151, 13-23.

Kidwell, J.S. Adolescents' Perceptions and the Effect of Spacing. Journal of Population: Behavioral, Social and Environmental Issues, 1978, 1(2), 148-166.

Ko, Y., and Sun, L. Ordinal Position and the Behvaior of Visiting the Child Guidance Clinic. Acta Psychologia Taiwanica, 1865, 1016-1062.

Kurth, E., and Schmidt, E. Multidimensional Examinations of Stuttering Children. Probleme and Efgebnisse der Psychologie, 1964, 12, 49-58.

Lewis, E.J. Psychological Determinants of Family Size: A Study of White Middle Class Couples Ages 35-45 with Zero, One or Three Children. Proceedings of the 80th Annual Convention of the American Psychological Association, 1972, 665-666.

Lewis, M. and Kreitzburg, V.S. Effects of Birth Order and Spacing on Mother-infant Interactions. Developmental Psychology, 1979, 15, 617-625.

Lynn, D.B. The Father: His Role in Child Development. Monterey: Brooks-Cole, 1974.

Marino, C.D. and McCowan, R.J. The Effects of Parent Absence on Children. Child Study Journal, 1976, 6(3), 165-182.

Miller, N. and Maruyama G. Ordinal Position and Peer Popularity. Journal of Personality and Social Psychology, 1976, 33, 123-131.

Polit, D.F. The One-parent/One-child Family: Social and Psychological Consequences (Final Report, Contract No. NOI-HD-82852). American Institute for Research, Cambridge, Massachusetts, 1980.

Rodgers, J.L. Confluence Effects: Not Here, Not Now! Developmental Psychology, 1982, in press.

Roe, A.A. Psychological Study of Eminent Psychologists and Anthropologists and a Comparison with Biological and Physical Scientists. Psychological Monographs, 1953, 67(2, while No. 352).

Rosen, B.C. Family Structure and Achievement Motivation. American Sociological Review, 1961, 28, 574-585.

Rosen, B. and D'Andrade, R.C.T. The Psychosocial Origins of Achievement Motivation. Sociometry, 1959, 22, 185-218.

Rosenberg, M. Society and the Adolescent Self-image. Princeton, New Jersey: Princeton University Press, 1965.

Rosenfeld, H. Relationships on Ordinal Position to Affiliation and Achievement Motives: Direction and Generality. Journal of Personality, 1966, 34, 467-479.

Sampson, E.E. and Hancock, R.F. An Examination of the Relationships Between Ordinal Position, Personality and Conformity: An Extension, Replication, and Partial Verification. Journal of Personality and Social Psychology, 1967, 5, 398-407.

Schachter, S. The Psychology of Affiliation. Stanford, California: Stanford University Press, 1959.

Schooler, C. Birth Order Effects: Not Here, Not Now!. Psychological Bulletin, 1972, 78, 161-175.

Sells. B. and Roff, M. Peer Acceptance-rejection and Birth Order. American Psychologist, 1963, 18, 355.

Shinn, M. Father Absence and Children's Cognitive Development. Psychological Bulletin, 1978, 85(2), 295-324.

Skouholt, T., Moore, E. and Wellman, F. Birth Order and Academic Behavior in First Grade. Psychological Reports, 1973, 32, 395-398.

Snow, M.E., Jacklin, C.N. and Maccoby, E.E. Birth-order Difference in Peer Sociability at Thirty-three Months. Child Development, 1981, 52(2), 589-595.

Snyder, M. and Swann, W.E. Behavioral Confirmation in Social Interaction: From Social Belief to Social Reality. Journal of Experimental Psychology, 1978, 14, 148-162.

Snyder, M. Tanke, E.D. and Berscheid, E. Social Perception and Interpersonal Behavior: On the Self-fulfilling Nature of Social Stereotypes. Journal of Personality and Social Psychology, 1977, 35(9), 656-666.

Solomon, E.S., Clare, J.E. and Westoff, C.F. Social and Psychological Factors Affecting Fertility. The Milbank Memorial Fund Quarterly, 1956, 34, 160-177.

Steelman, L.C. and Mercy, J. Unconfounding the Confluence Model: A Test of Sibling Size and Birth Order Effects on Intelligence. American Sociological Review, 1980, 45, 571-582.

Sutton-Smith, B., Rosenberg, B.G. and Landy F. Father-absence Effects in Families of Different Sibling Compositions. Child Development, 1968, 40, 1213-1221.

Thompson, V.D. Family Size: Implicit Policies and Assumed Psychological Outcomes. Journal of Social Issues, 1974, 30, 93-124.

Tuckman, W. Family Constellation: Its Effects on Personality and Social Behavior. New York: Springer, 1969

Toman, W. and Toman, E. Sibling Positions of a Sample of Distinguished Persons. Perceptual and Motor Skills, 1970, 32, 825-826.

U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 263, Fertility Histories and Birth Expectations of American Women: June 1971. U.S. Government Printing Office: Washington, D.C., 1974.

U.S. Bureau of the Census, Current Population Reports, Series P-20, No. 375, Fertility of American Women, June 1980, U.S. Government Printing Office: Washington, D.C., 1982.

Westoff, C.F. and Ryder, N.B. The Contraceptive Revolution. Princeton, New Jersey: Princeton University Press, 1977.

Winterbottom, M.R. The Relation of Need for Achievement to Learning Experiences in Independence and Mastery. In J.W. Atkinson (Ed.), Motives in Fantasy, Action and Society. Princeton, New Jersey: Princeton University Press, 1977

Zajonc Defuses IQ Debate: Birth Order Work Wins Prize. APA Monitor, May, 1976, p. 1.

Zajonc, R.B. Birth Order and Intelligence: Dumber by the Dozen. Psychology Today, 8(8), 37-43.

Zajonc, R.B. and Markus, G.B. Birth Order and Intellectual Development. Psychological Review, 1975, 82, 74-88

Zimbardo, P. and Formica, R. Emotional Comparisons and Self-esteem as Determinants of Affiliation. Journal of Personality, 1963, 31, 141-162.